# index 2000

## Subject


5-Hydroxytryptamine, 101

**A**-level chemistry, assessment, 72
A-level examinations, 72
A-level experiment, acid–base, 47
A-level experiment, dyes, 78
A-level experiment, reaction rates, 71
Acive matrix displays, 155
Advanced Extension Awards, 86C
Advanced mentoring scheme, 31C
Advanced skills teachers, 59C
Alex H. Johnstone, comment 2000, 12
Ames test, 124
Amino plastics, 16
Analytical organic chemistry, 78
Animal experiments, alternatives, 123
Antidepressants, 100
Antimalarial drugs, 151
Art conservation, 13
ASE, Leeds, 30C
Assessing science, through theatre, 33C
Assessment, international comparisons, 105
Atkins, Peter, comment 2000, 39

**B**acterial systems, carcinogenicity testing, 124
Barbier, Phillippe, and the Grignard reaction, 131
BASF–CIEC, special needs project, 32C
Binary mixtures, conversion map, 38L
Book reviews
- A-level, chemistry, 163, 164
- Acid–base equilibria, 164
- Chemical kinetics, 165
- Chemical modelling, undergraduate, 111
- Chemical problems, undergraduate, 111
- Chemical industry, 163
- Chemistry of life, undergraduate, 139
- Environmental chemistry, A-level, 138
- Environmental chemistry, undergraduate, 27
- Everyday chemistry, 111
- Experimental chemistry, 164
- GCSE, chemistry, 27, 163
- Inorganic chemistry, general, 166
- Inorganic reaction mechanisms, undergradute, 139
- Inorganic synthesis, undergraduate, 55
- Instrumental analysis, undergraduate, 139
- Mathematics, for chemists, 164
- National Curriculum, chemistry, AT3, 138
- New Zealand, chemical milestones, 166
- Organic chemistry, undergraduate, 27, 83, 165
- Organic spectra, post-16, 163
- Periodic Table, 83
- Radium, discovery, 164
- Revision guide, GCSE, 163
- Salters' Higher chemistry, 55
- Science education, 83
- Science online, 164
- Scientists' lives, 138
- Solid state chemistry, undergraduate, 55
- World of Science series, KS3, 138
- World records on chemistry, 27

Brewers yeast, 124

**C**anary girls, 104
Carcinogenicity testing, 123
Careers advice, RSC, 126
Catalysts, green chemistry, 41
Chemical calculators, 110
Chemical demonstrations, on the Internet, 119C
Chemical drawing package, 156
Chemical epistemology, 168
*Chemistry and art*, RSC/National Gallery publication, 13
Chemistry benchmarks, degree level, 87C
Chemistry Camps, RSC, 117C
Chemistry Club, Salters', 118C
Chemistry teaching, outlook, 95
Chemistry trails, 10C, 66C, 118C
Chemistry Week, 3C
Chemistry, on TV, 59C
Chemlingo, 37C, 93C, 146C
Chemsoc, 126
Chinese herbal remedy, 152
Chlorpromazine, 99
Clinical depression, chemistry of, 99
Cobaloximes, undergraduate experiment, 20
Coca Cola plant accident, school investigation, 47
Coffee, soundbite, 34C
Comet assay, carcinogenicity tests, 125
Computers in chemistry, 98
Conservation, 78
Conversion masters, 114C
Core chemistry, Europe, 35C
Course design, 122
CPD, for school teachers, 58C
*creating Sparks*, 60C
Curriculum design, 168
*Cutting edge chemistry*, RSC schools' publication, 31C

**D**epression, biochemical basis, 100
Diesel engines, emissions, 129
Distillates, chemical education, 25, 82, 137
Distillates, research news, 54, 110, 164
Dye chemistry, history of, 112

**E**ducation policy, RSC, 126
Emsley, John, RSC award winner, 116C
Environmental issues, 70
Epibatidine, soundbite, 9C
European chemistry, undergraduate, 35C
Exhaust catalysts, 127
Experimentation, definition, 49

**F**eatures of interest, teaching method, 51
Fireworks, chemistry of, 10C
Fizzy tablet, A-level experiment, 71
Fluorescent strip lights, 118C
Frazer, Malcolm, comment 2000, 68
Free radicals, chemlingo, 93C
Frog venom, 9C

**G**arlic, chemlingo, 93C
Gaseous discharge tubes, 118C
Gender issues, research, 25
GNVQ Advanced Science, revised, 56
Gold, chemistry, soundbite, 91C
Green chemistry, 40
Greenhouse gas, SF6
Greenwood, Norman, comment 2000, 122
Grignard reaction, 131

**H**azchem system, 66C
HE, qualifications framework, 2C, 114C, 142C
HE, quality assurance, 3C, 68
Health and Safety, 11L, 67L
*Higher quality* 6, QAA, 3C
History of chemistry, 103
History of chemistry, amino plastics, 16
History of chemistry, dyes, 75, 112
History of chemistry, Grignard reaction, 131
History of chemistry, melamine, 16
History of chemistry, Perkin's mauveine, 75
Hooper, Norman, RSC award winner, 116C
HPLC, for undergraduates, 107

**I**ncandescence lights, 118C
Industrial visits, schools, 32C
InfoChem
- Allergic reactions, no 62
- Alzheimer's disease, new drugs, no 63
- Antibiotic resistance, no 62
- Archaeological chemistry, no 65
- Beer, cloudiness, no 61
- Chemistry in buried bones, no 65
- Cholesterol, no 66
- Dietary fats, no 66
- Emeralds, no 63
- Epsom salts, no 63
- Food chemistry, no 62
- Functional foods, no 66
- Giant crystals, no 65
- Immune system, no 62
- Lab-on-a-chip technology, no 61
- Microscale reactors, no 61
- Neutraceuticals, no 66
- Phytochemicals, in apples, no 65
- Supercritical fluids, no 64
- Water treatment, no 61

Inorganic chemistry, undergraduate teaching, 122
Inset, RSC, 126
Inset, web-based, 25
Internal combustion engine, exhaust compositions, 127
International comparisons, student achievement, 105
Internet, chemical demonstrations, 119C
Internet, learning from, 137

**K**eeler, James, comment 2000, 95
Key skills, undergraduate teaching, 134
KS4, specialist teaching, 34C

**L**ab-on-a-chip technology, 96
LCDs, 153
Lead, poisoning, 103
LearNet, 126
Liquid crystals, 153
Logic gates, 110
LSD, D-lysergic acid, 63C

**M**ain Group chemistry, teaching of, 51
Malaria, 151
Maleic anhydride, industrial production, 41
Mammalian culture systems, cancer, 125
Mary Rose, conservation, 78
Match girls, 103
Maths, in chemistry courses, 95
Mauveine, A-level/undergraduate project work, 75
MChem/MSci qualifications, 2C, 114C, 142C
Melamine, history of chemistry, 16
Mepacrine, 152
Mercury, in lighting, 118C
Microfabrication, 96
Migraine therapy, 43
Miniaturisation, chemical techniques, 97
Models, in chemistry teaching, 137
Monoamine oxidase inhibitors, 100
MTBE, soundbite, 117C
Murexide, dye, 112

**N**anopens, 54
National Curriculum, impact on teaching, 137
National Curriculum, new orders, 3C
Neurotransmitters, 101
New particles, 28
Nobel prize, chemistry, 8C

**O**lympiad, competition, 115C

**P**assive smoking, 110
Performance thresholds, 58C
Periodic Table, *Visual elements*, 126
Perkin, W. H., 77
Petrol additive, 117C
Petrol engines, emissions, 129
Pfizer, mentoring scheme, 31C
PGCE, title, 115C
Phosphorus, poisoning, 103
Phossy jaw, 103
Photochemical smog, 127
Photolithography, 97
Phthalimide, preparation, 94L
Physical Sciences Centre, 115C
Pickling girls, 104
Post-16–university transition, 11L
Postgraduate skills record, 61C
Practical chemistry, 67L
Professional development, 58C
Project Improve, update, 7C
Prout, William, 112
Prozac, antidepressant, 102
Prussian blue, 14
Public Understanding of Science, 59C
Public understanding, awards, 60C

**Q**AA, chemistry benchmarks, 87C
QAA, student progress files, 135
QCA, essential chemistry, 56C
Qinghaosu, 158
Qualifications framework, HE, 114C, 142C
Quality assurance, HEIs, 68
Quartz-halogen lamps, 118C
Quinine, 152

**R**adium girls, 104
Reaction rates, 121L
Revision techniques, HE, 160
Rice, David, comment 2000, 150
Roman Purple, 112
*Rough science*, OU–BBC science, 59C
RSC website, 126
RSC, CD-ROM, 36C, 168C
RSC, Chemical Education Award, winners, 116C
RSC, Chemistry Camps, 116C
RSC, Chemistry Week, 3C
RSC, *Cutting edge chemistry*, 31C
RSC, educational activities, 126
RSC, HE awards for teaching, 144C
RSC, olympiad team, 115C
RSC, performance threshold guidelines, 58C
RSC, Public Understanding of Science, 89C
RSC, school–university interface meeting, 6C
RSC, teacher fellow 2000–2201, 90C
RSC, Top of the Bench winners, 62C
RSC, undergraduate tutorial texts, 7C

**S**alters' Chemistry Teacher, 1999, 7C
School experiment, acid–base, 47
School textbooks, 38L
School–university interface, 30C
School–university interface, RSC meeting, 6C
Science theatre, 33C
Scientific literacy, definition, 82
Scientific progress, teaching of, 84
Scottish Qualifications Framework, 114C
Sixthform research, awards, 62C
Skills logbook, University of York, 134
Software reviews
- GCSE revision, 163
- Labmouse CD-ROM, 55
- Labmouse2, 83
- Materials, 163

Soundbite molecules, 9C, 34C, 63C, 91C, 117C, 145C
Spider diagrams, 51
Street lights, chemistry, 118C
Subject centres, 35C
Sulphur hexafluoride, greenhouse gas, 69
Sumatriptan, migraine treatment, 43

**T**aber, Keith, RSC teacher fellow, 90C
TCS, industry-linked research, 87C
Teaching, by successive approximation, 38L
Testing, 140
*The portrait of Alexander Mornauer*, conservation, 13
Three-way catalysts, 128
TIMSS, 1995 study, 105
Transgenic cells, 125
Trapping electrons, 54
*Tundra*, science theatre, 33C

**U**K science, concerns, 88C
Undergraduate experiment, cobaloximes, 20
Undergraduate experiment, HPLC, 107
Undergraduate revision techniques, 160
Undergraduate, key skills, 23
Undergraduate, tutorial texts, 7C
Universal Indicator, colours, 94L
University chemistry courses, 39
University practical work, 49
University teachers, RSC award winners, 144C
University teaching, inorganic, 51, 122
University–industry links, 23, 87C

**V**ehicle emissions, 127
Virtual spectrometer, 121L
Virtual university, 61C
*Visual elements*, Periodic Table, 126
von Reichenbach, Ludwig, 112

**W**ater testing, 54
Web links, teachers, 126
Web watch, 22, 46, 65, 109, 129
Women's work, industrial chemistry, 103
World class tests, 86C
www.chemsoc.org, 126
www.rsc.org, 126

**Z**ewail, Ahmed, Nobel prizewinner, 8C


## Key

C - Column
L - Letter to the editor

## Authors


Arad, N., 47
Atkins, P., 39

Barker, P. A., 67L
Barker, V., 6C, 72
Bennett, S. W., 49
Berry, M., 13
Borrows, P., 10C, 66C, 67L, 118C
Bottrill, K., 123
Bradley, D., 8C, 54, 110, 162
Brightman, C. A. J., 11L
Brown, T. M., 20, 28, 75, 99, 131
Butler, A., 151

Cardellini, L., 67L
Childs, P., 37C, 93C, 146C
Coates, D., 153
Collie, R., 22, 46, 65C, 109, 129, 148
Cooksey, C. J., 20, 75, 112, 156
Cotton, S., 9C, 34C, 63C, 91C, 117C, 143C, 145C
Cowen, S., 96

Denham, B., 78
Dickson, N. J., 38L, 94L
Driver, J., 23
Dronsfield, A. T., 20, 28, 75, 99, 112, 131, 156

Ellis, F., 43
Ellis, P. M., 99
Erduran, S., 168

Fletcher, J. R., 107
Fowler, J., 20
Frazer, M., 68

Garratt, J., 121L
Glasser, L., 121L
Greenwood, N., 122

Harrison, B., 127
Hathaway, B., 51,
Hensman, T., 151
Heron, C., 78
Hewlin, A., 69
Hoppe, J., 67L, 149L

Jenkins, E., 105, 119C, 140
Johnston, J., 89C
Johnstone, A. H., 12

Kee, T. P., 23
Keeler, J., 95
Kennedy, D., 51
Kesner, M., 47
Kirby, J., 13

Lancaster, M., 40
Lee, N., 149L
Lowe, N. D., 134

Maitland, D., 78
Morris, P. J. T., 131
Moyes, R., 11L
Murphy, B., 51,

North, P. C., 43

Osborne, C., 3C

Parker, J., 28
Parkinson, J., 25, 82, 137
Peng, Y., 94L
Pinto, G., 71, 121L
Plesch, P. H., 38L, 121L

Rayner-Canham, G. W., 69, 103
Rayner-Canham, M., 103
Rice, D., 150

Song, G., 94L
Suttie, C., 56

Toole, A., 84
Toth, Z., 38L, 94L
Travis, A. S., 16

Wallace, R. G., 160
Wallance, S., 126